• HEALTH •

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

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Notes by the Way

"Health is the foundation of all our physical happiness."—*Herder.*

A medical friend, writing to us concerning the ways and works of quacks, remarks a well-known habit of the notorious species. By way of placing readers on their guard, we may reproduce the substance of our friend's observations. The quack-advertisements in the newspapers frequently notify to the unwary that "advice" is given "gratis." The unsuspicious mind, full of a belief in the goodness of human nature, and praising the charity of those noble souls who would thus appear to live only "to benefit (?) suffering humanity" (as a quack neatly enough styles his vocation) at once writes for the valuable advice and directions. By return of post comes a printed circular, containing "directions" and "advice" no doubt, but of a kind practically useless to the reader, and designed with foxy craftiness to throw the reader on the tender mercies of the quack. Before us lies a circular, which, with a beautiful rhetorical flourish, gives a series of Latin names and abbreviations by way of a prescription, and informs the reader how the ingredients of this valuable medicine are to be prepared. So far all seems clear, plain, and philanthropic. But when the reader begins to inquire where the plants and herbs of the prescription may be obtained, he finds himself nonplussed. Where, for example, can "Decoctum Geoffroyæ inermis" be obtained? Where is "Rad. Rumex Crispus," to be had? The reader is in despair. Quack-philanthropy solves the difficulty in its own and characteristic fashion.

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Taking courage, the reader continues his perusal of the circular. "I am requested by so many," says the author of the print, "(who have not the time and facilities for having this carefully made up) to get the prescription made up for them. I have, therefore, had a considerable quantity prepared, and put into boxes ready for use." Then follows what one expects, namely, the nice little price for the nice little vegetables, which the ingenious fabricator will send "privately," and "without any glaring advertisement or name on the box." On receipt of cheque or Post-office order for the amount required, this valuable remedy will be sent to any address. And the price? Well, rather high, we should say, for the simple "herbs of the field." The prices of the inestimable herbs (in boxes) are 12s., 21s., and 42s.; whilst "for severe cases," or when a number of friends desire a conjoint treat in the way of a decoction of herbs, the modest sum of "four guineas" is charged. "The figures may seem high," apologises the vendor of herbs, "but the boxes," he adds, "*contain a large quantity*" (*sic*). The ingenious nature, as well as the grammar, of this latter excuse, will doubtless be fully appreciated by our readers.

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The "cloven hoof" of quackery crops out elsewhere than in this practice of obtaining exorbitant prices for a few herbs. There are to be no dealings with chemists; for the chemists "send direct to me," says the herb vendor, "and then charge their customer some commission or percentage." We should like to hear of any case in which a respectable, educated druggist has paid money to the author of the circular before us for herbs, which, if in existence at all and if used in medicine, he could much more readily have obtained from his wholesale house, and have compounded himself. Druggists are not quite so silly or stupid as quackery would have us believe. Again: our herb vendor has no "agents"—for reasons sufficiently obvious, of course; but he will feel obliged if his patients will recommend his wares to their friends. Advertising in newspapers, and the credulity of the public, will together save the expense of "agents," for a time at least, and until the herb-decoction business gets played out. We often hear herbalists, pure and simple, condemned; but a man who understands something of the properties of herbs, and who sells for a few pence a decoction of dandelions or some similar simple preparation, knowing the effects of the beverage and making no pretence of secrecy, is not to be mentioned in the same breath with the quackery that flourishes in more pretentious places, and fleeces its victims of guineas for herbal trash.

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"Recreation for the People" is in reality a branch of health-science. Interested minds re-act upon bodies, just as healthy bodies act upon the brains they contain; and we are, therefore, glad to see that the labours of the committee of ladies and gentlemen who are making the "Royal Victoria Coffee Hall" (Waterloo-road, London, S.E.) a place of sensible recreation, are meeting with deserved success. A course of illustrated lectures is now being given on Tuesday evenings. A discourse on "Ancient English Dragons" would seem to be a form of recreation (even when illustrated with lime-light views) ill-adapted for the district wherein the "Royal Vic'." is situated. But the lectures are listened to with rapt attention; the lecturers are loudly applauded; the audience is of the most orderly description, and relishes with gusto the additional "variety entertainment" which is provided at 9.30 p.m. by way of a light after-piece. This movement, combining popular education with amusement, must not be lost sight of by those who are intent on improving the condition of the poor. Its success is the best guarantee that the minds of the slums, on the whole, are not quite of such degenerate character as many have been led to suppose.

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"Can artificial injuries and deformities be inherited?" is a question of high importance, and one which appears susceptible of an affirmative answer. The question has often

been asked why sheep are not born with "docked" tails, or why terrier dogs, whose tails have been artificially "amended," do not show, in their offspring, the perpetuated deformity? The answer to such questions is simply this—that the deformities in question are not inflicted at a period of life, and do not so affect the constitution of the animals that their perpetuation is rendered a necessary result. In other words, if the conditions under which the injuries are inflicted do not conform to the laws of "inheritance" (or "heredity") we cannot expect such deformities to be perpetuated from one generation to another.

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But it so happens that observation occasionally furnishes us with interesting illustrations of the working of laws which we may only partially and imperfectly understand. Here is a case—culled from an interesting American contemporary, *Science*—which is certainly worth recording as an example of the propagation of physical injuries. A gentleman, when seven years of age, had the second toe of his right foot deformed by wearing a tight boot. The first and third toes were forced together, so as to cause the second toe to be pressed under and backwards; the second joint becoming in due time curved in a rigid and permanent form. This joint, receiving a large amount of shoe-pressure, became troublesome in after-life. The gentleman was twice married. To the first marriage, there were born six children, the second child being a daughter. This daughter inherited the crooked and deformed toe of her father; but the other children—all sons—possessed normal feet. The deformity, however, also appeared in a child of one of the sons—the brother next younger than the sister—the deformity affecting the same foot and toe in the child, as in its grandfather.

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By his second wife, the gentleman had only one child—a son. He inherited his father's deformity; but it was the second toe of the opposite or left foot (instead of the *right* foot, as in the father), which was affected. The correspondent of *Science* who gives these details, states that all the four persons with the deformed toes are still alive, and that he has fully satisfied himself of the correctness of the statements and facts above detailed. The original subject of the deformity says that his feet were normal and natural until he was seven years of age. He remembers the growth and production of his deformity; and an examination of the foot does not indicate that its peculiarity arose from any *inherited* cause. There is, besides, no history of any deformity or other peculiarity in his family; and from the facts already detailed there would appear to exist no reasonable doubt that the malformation, as such, was artificially produced; and secondly, that it was perpetuated in the descendants of the subject in which it originally occurred.

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We shall return to this topic and to the accounts of allied cases at an early date. We would meanwhile ask the readers of Health to be kind enough to furnish us with particulars of any similar or allied cases which may be known to them. Facts like these are extremely valuable, both from a scientific and social point of view. We need hardly add that we shall treat all communications as strictly confidential, and that where mention may be made of the information thus afforded, no names or other specific allusions to personal histories will be published.

Original Essays

"Life is not to live, but to be well."—*Martial.*

MISTAKES IN MEDICINE.

There are no professional functions so often assumed by the non-professional as are those which belong to the field of medical practice. From the earliest times, when all that was known of medicine and surgery was barbarous and empirical, when magic and mystery were the agency of the Æsculapian and the cloak of the deluded, down to the present day of accurate observation, cautious generalisation, and instrumental aid in medical work, there have ever been ready for advice, on any emergency, large numbers of kindly amateurs who seemed charmed with the idea of exhibiting superior knowledge. So long as mystery and mummery held a large share in the armamentaria of the physician, it was certain that the hollow methods would be copied and extended by the needy and the credulous, but it might have been anticipated that the dawn of the scientific era, and the now noontide splendour of criticism and experiment would have cleared the atmosphere of superstition and mysticism in the use of drugs, and give the quietus to charlatans of all shades. In the grosser forms of charms and such-like agencies, acting wholly on the imagination, there is certainly little trust now placed; but the reliance which is still felt among large classes of the people in drugs, and complicated concoctions from the hands of the most ignorant pretenders, and in manipulation unguided by either anatomical or surgical knowledge, is a remnant of the same mystical beliefs as flourished centuries ago.

In saying so, it is not intended to assert that no good can come of this method, for we have here in full force, at least commonly, that faith which seems the essential to cure in many cases, and which, aided by time, often completes recoveries which appeared more than doubtful at the outset of the treatment. Experience of a somewhat extensive kind leads to the belief that the absolute confidence which places a life, perhaps, in the hands of a man whose sole claim to this effacement of the faculty of doubting may and does occasionally lead to healing, though the drugs or other appliances used may be totally inert, if not prejudicial. Bold, unscrupulous self-assertion has an immense power over most of us at best; and when body and mind are weakened or powerless under the weight of chronic illness, a tendency to grasp at what is proclaimed in every newspaper and on every hoarding as a *cure-all*, becomes a very passion. Under these circumstances, and with the inspiring assumptions of men engaged in the traffic, good results are sometimes had; but there is in the whole range of popular errors in medicine none so egregiously silly as this of swallowing unlimited quantities of mixtures supposed from their secrecy to be successful. Admitting the probability of occasional good, it is safe to say that so long as a preparation is kept secret, and lauded as a cure for various dissimilar diseases, judicious householders or sufferers will give it a wide berth, preferring the ills they have, rather than flee to others which they know not of. There is, unfortunately, no means of knowing the annual fatality caused, even immediately and directly, by secret remedies; but, judging from personal experience, the writer would place the number of deaths as very large; and the use of these among children has become such an evil as to cry urgently for legislative suppression.

Perhaps the most common, and certainly the most unaccountable, error in regard to the medication of Englishmen

is the love of drug-drinking present in a large section of the population. It is perfectly true—monstrous absurdity though it appears when plainly stated—that hundreds of thousands of our countrymen are in the daily, bi-weekly, or weekly habit of dosing themselves with potent drugs, and are at the same time enjoying the most perfect health. It is marvellous, and much to the credit of our forefathers, that after years of such treatment many of those people fail to injure themselves appreciably by the practice. The number of pills of a more or less purgative character used habitually under the supposition that a non-existing malady will be cured or some threatened attack avoided is quite incalculable. Many persons in perfect health look upon tonics as necessary preventives of something they cannot well define; narcotics get into regular use when they are by no means needed, and others imagine that their kidneys need regular stimulation by gin, nitre, or other diuretic.

It may be that on one or more occasions medical instructions have been given that a laxative or tonic is advisable, and henceforth on the slightest discomfort recourse is again had to the drug formerly found useful; and the most remarkably varied powers will be attributed to any simple means which have proved efficient on the first occasion. In this way not only are valuable medicines lost and thrown into disrepute, if the patient has intelligence enough to appreciate results, but in many cases valuable time is lost in applying appropriate remedies. It is by no means rare to find aged people who for many years have, with a regularity and pluck worthy of a better cause, once, twice, or thrice a week taken "a pill," of whose contents they know nothing, for a complaint of which they know less; and in many instances, one pill being enough to begin with, it has been found necessary to increase the dose to perhaps half-a-dozen on each occasion. In like manner the victims of some chronic complaints, such as rheumatism, and that hydra-headed monster "dyspepsia," go on using gallon after gallon of medicines which long ago have become flat, stale, and unprofitable.

Every now and again physicians meet with patients who show almost a mania for drug-drinking; they are dissatisfied unless constantly recommended their familiar "bottle," and an honest, firm expression of opinion on the weakness not unfrequently sends the victim elsewhere for advice. The writer at one time practised in a locality where stated payments were made by the workmen for medical attendance, whether such was required or not, and there it was found almost impossible to avoid giving medicines in amount far exceeding the necessity. These workmen have no respect for medical advice unless accompanied with a mixture; they would swallow the nastiest concoctions with complacency, and in some cases could scarcely be removed from the doctor's list, though entirely free from disease of any kind. Among the wives of these workmen the craze for drugs was even stronger, and either for themselves or their little ones they were seldom without a preparation of some sort. Tired of the doctor's monotonous dosings, or baffled by his determination no further to yield to the amiable weakness, a course of medicine from the chemist would next be tried, and in some way this strange appetite would be met. It is here we have the origin of much of the rather harmless quackery indulged in by more or less designing knaves, or kindly neighbours. A qualified practitioner may be compelled by business instinct or constitutional timidity to overstep the proper limits in medication, but conduct of this kind is not likely to be long continued, and the patient makes off to less conscientious consultants when the fleecing process is carried on indefinitely; or drops into the class of chronic hypochondriacs who listen to the sympathetic voice of every amateur in physic among the friends who tolerate their tales of suffering and of sorrow.

The difficulty experienced by every practitioner of medicine from the love of drugs on the part of those who seek advice becomes intense in the case of conscientious men who have not yet gained a position of comparative independence. These men must live; and many scientific physicians have at this stage descended from their ideal, and gone in for that fatal routine which consists so largely of ordering labelled "cures" for every disease. The public will not believe that the man who prescribes least physic is likely—nay, almost certain—to be the truest physician. They commonly believe that a consultation or a visit which does not end in the writing of a prescription or the supply of a mixture is hardly worth having, and is certainly unworthy of payment. Those who are fond of noting national characteristics may take it as proved that the weakness here referred to is much more fully developed in England than it is north of the Tweed. An experience of several years' practice in both countries brings this feature out in the most marked manner, and taken as a whole, though statistics are not obtainable to help us here, it may be guessed that the average Englishman consumes double the quantity of drugs taken by the Scot. Whatever may be the cause, one finds in the North less reliance placed on physic alone, and a greater heed given to direction in the laws of health, and those physiological principles which, if attended to, would add so much to the world's happiness, though possibly at considerable sacrifice to the doctor's pocket.

It may be hoped that the tendency to the intemperate use of drugs is diminishing under the influence of a better education in the country generally; and year by year there are issuing from our universities and medical schools a class of practitioners taught to be less meddlesome in the treatment of disease than their predecessors, and less dependent on the aid of physic. A slight amount of scepticism on the part of the educated public would help to eradicate the evil complained of, and set the doctors themselves in a higher position. The aid of "Health Lectures," and the more general teaching of simple physiological truths will, ere long, lift the community into such enlightenment as may at least mitigate this craving for drugs.

While the voluntary dosing of adult Englishmen must be left in their own hands, it is questionable whether the law should allow the same idle, ignorant, and often fatal habits to affect the children of the masses as they now do. The amount of unnecessary physicking which goes on in our nurseries, starting from the first hour of life, is shocking in the extreme. Could the child prodigies of the Macaulay order carry back their memories to the first five minutes after the first dressing, they would frequently find Mrs. Gamp in possession armed with the inevitable spoon, and preparing a foretaste of the miseries of life; day by day, or week by week, the image would become so absorbing that about the period of teething nothing else would be remembered; and as months rolled into years one of the chief elements of happiness would be

Sanitary Inspections.—Fee for Survey and Report, in London, 2 Guineas. Estimate given and Improvement Works carried out when required.—The Sanitary Engineering Co., 115, Victoria-street, Westminster, S.W.—[Advt.]

More about Kola Nut.—Messrs. Heyman & Phillips, of 15, Clifford-street, Bond-street, W., are grateful to the Editor of Health for his interesting article in the issue of January 11th. The Kola Nut on sale, 2s. 9d. a box, from them or from all chemists. —[Advt.]

found in the fact that a power of resistance to the infliction had arisen, and on that account powders and potions had become more rare. Why, in all the world, people will persist in purging infants out of existence before life is rightly begun, is a problem rather hard of solution. Instead of a virtual rule in favour of physic, there should be a stringent determination that the child shall have no such infliction without the benefit of a medical consultation, or other check.

It is a positive abuse of parental authority to keep pouring drugs into defenceless babes who, in nineteen cases out of twenty, have no need of such interference, and, in the twentieth case, have generally to thank the use of improper food or some careless exposure for the necessity. Even the castor-oil, Gregory's mixture, grey powder, &c., used so lavishly must be harmful when unneeded; but unfortunately these are not the only weapons in common use, and in many homes the impatient and lazy nurse or mother provides herself with preparations in the shape of soothing syrups and teething powders, which, intended to give nurse and child alike some hours of quiet sleep, too often ends in the fatal poisoning of the innocent victim. These cases are familiar enough to newspaper-readers, but it is quite well known that the number thus brought to light is a very small proportion of the actual fatalities. There is here an open door to the poisoner, and the laws relating to the sale of poisons are drawn as if intentionally inviting to criminal courses. It is true that there is a slight difficulty in the way of obtaining dangerous drugs, *sold as such*, from respectable druggists; but it is quite well known that certain patent medicines contain prohibited articles, which can thus be obtained from any grocer or oilman, however ignorant as to the properties of the articles sold, who chooses to spend five shillings for a licence. This prolific source of infant mortality has been over and over again referred to, even in Parliament; and every practitioner of medicine knows full well how widespread is the evil, how demoralising and deadly is the practice.

The drug-drinking among adults, and the unfortunate habit of dosing unnecessarily infants and children, are amongst the most conspicuous popular errors in medicine, but others, more detailed in character, may profitably be referred to in a future paper.

STORIES OF SCIENCE AND CRIME.

SEVENTH PAPER.—CASES OF FASTING (*Continued*).

Another case was that of a gentleman about thirty-three years old, who had often been subject to fits of depression and melancholy.

"For many years, I believe, the condition of this gentleman continued the same. He was induced to try the effects of change of air and scene; but this he declared wearied him too much, and finally he settled down a confirmed invalid of the *malade imaginaire* type, pure and simple. In seeking one day for advice from a professor of a schismatic school of physic, he gathered what he supposed to be an entirely new light as to the cause of his malady. The professor, very learned and imposing, detailed to the sufferer the ideas then prevailing as to the cause of primary digestion, and the experiments which Dr. Beaumont had conducted on that most interesting of physiological instructors, Alexis St. Martin. This history of the accidental shot which has made St. Martin such a figure in history, even to the present time (for I believe he still lives), the account of the opening into the stomach, of the notes that had been made from visual inspection of the process of digestion, the description of the gastric juice that was extracted, and the further explanation as to the solvent action of the gastric juice on food, became a perfect fascination for the anxious invalid; and when the learned expositor improved the occasion by telling his patient that all this demonstrative argument was but a prelude to the grand inference he drew as to the patient's present condition, the inference being no more nor no less than that the unfortunate patient could not possibly digest food because he produced no gastric juice, the enlightenment was complete, positive, and unanswerable.

"From that day, by a kind of logical determination which it was most difficult, and I may say at once impossible, to combat so as to carry conviction to the mind of the sufferer, he maintained that, as he had no gastric juice, it was utterly useless for him to take food of any kind, except water, which required no digestion. The idea implanted in his mind held its place, and was never uprooted. Unfortunately, it was confirmed by the effects of a first attempt at reduction of food. The stomach, no doubt very feeble and irritable, was relieved by a reduction of food, and therewith the depression of mind was signally relieved—an occurrence by no means unusual, and perhaps a natural consequence.

"Soon after the first attempt to reduce food to a minimum, there succeeded another stage, in which the desire for food appeared to pass away altogether. Then, when food was taken, by a great effort and with much repugnance, it caused pain, disturbance, and a greater depression than usual of mental power, with a more determined dislike to repeat the process, and a firmer and deeper conviction in the hypothesis that he failed to produce any of the natural digestive fluid.

"In time there seemed to be an entire failure of desire for food; a loss of sense of taste; a loathing at the odour of food; an irritable objection to have the subject of feeding even spoken about; and, finally, a resolute determination not to take any more food at all unless appetite or desire for some particular kind or quality of food revisited him. From that moment the rigid fasting commenced. Of water he would partake readily, but not largely, for he said that in quantity it was heavy and cold, and caused painful distension. He would take it to allay thirst, and nothing more. For ten days, under this *régime*, he went about the house and walked occasionally in the garden, refusing medical advice. After this he took to his bed, and declined to rise except to have the bed made. He now wished for medical attention, but was as resolute with his medical advisers against taking food as he was with the members of his family.

"The course of events in this example differs from that which was followed by Dr. Tanner and Reuben Kelsey in this matter of rest. The man who is now being referred to remained in bed until the hour of his death. His room also was kept quiet and warm, and he was permitted to sleep as often and as comfortably as could be wished. The other two—Tanner and Kelsey—walked about, and Tanner seems to have been often irritated

Chappuis' Daylight Reflectors.—Manufactory, 69, Fleet-street.—[Advt.]

Barnes's Impermeable Opium Poultice, an effective and perfectly safe application for relief in neuralgia, gout, rheumatism, painful swellings, and lumbago. Prices by post 1s. 3d. and 2s. 5d. 1 and 2, Trevor-terrace, Knightsbridge, S.W.—[Advt.]

Snelgrove's Governor Gas Burners.—Save quarter to half the gas bill. 15s. per dozen. Samples 18 stamps. Lists free.—60, Queen Victoria-street, E.C.; and of all Ironmongers.—[Advt.]

and disturbed. The difference was all in favour of the bed-ridden experimentalist, and the fact was marked in the results, for he lived two days longer than Kelsey: he died on the fifty-fifth day, having abstained from all solid food and partaken of no other drink than water for seven weeks and four days. Once in this time an effort was made to feed him, perforce, with milk; but he resisted so determinately, and subjected himself to such danger by his resistance, that the attempt was not made a second time.

"Precisely as in the instances of Dr. Tanner and Mr. Kelsey, the great reduction of bodily weight occurred, in the gentleman whose history I am now detailing, during the earlier stage of the process of fasting. He sank into the extremest state of emaciation during the first three to four weeks of his trial, after which he did not seem to me to undergo further change, although I saw him almost daily. He slept a great deal, and at times he tried to read; but the effort at reading soon became wearisome and painful, and was never more than a mere listless occupation. He was not at any times irritable, except when pressed to take food, and he was fond of hearing the current topics of the day; but he soon wearied also at being conversed with, and would drop off into a semi-somnolent state while conversing. I never heard him complain of any pain or discomfort; he did not seem to express or feel desire to live, and he certainly never expressed any desire to die.

"As the last days of his life drew near, he became much feebler rather suddenly, and his mind, I thought, was inclined to wander for brief intervals. But he quickly recovered himself, and on the day before his death he was unusually clear in his mind. He was painfully shrunken in feature; his voice was low, and almost bleating; his colour was leaden dark; his lips were blue and cold; his limbs were cold; and his breath was cold and offensive, having the odour of newly-opened clayey soil. On the morning of his death he, for the first time from the commencement of his fast, expressed that he would eat, and that which he wished for was fruit or raw vegetable with cream. An attempt was made immediately to pacify his desire, under the hope that, if he once recommenced to take food of one kind, he might be tempted to take more promising support; but it was of no avail, and in fact nothing was swallowed. Soon after this he sank into unconsciousness, and so succumbed.

"I have given in the above the barest outline of facts of this long endurance of life during deprivation. It is sufficient, without further detail, for showing that the supposed impossible fast performed by Dr. Tanner is quite within the range of possibility, all supposition of imposture being entirely set aside. If on the fortieth day of his fast this gentleman had taken food, as Tanner did, I do not think there is a doubt but that he would have recovered."

Medical and Sanitary Exhibition, 1881.—Award of Merit.—Diabetes. Van Abbott's Gluten Bread, and all other suitable Foods for Diabetic Patients. Dietary Tables and Price Lists post-free on application. Van Abbott, 5, Princes-street, Cavendish-square, W.—Delicate Children and Adults Suffering from Nervous Depression. Van Abbott's Hypophosphite of Lime Biscuits, for Delicate Children, especially those suffering from Deficiency of Bone, Weak Joints, or Debility, and Adults suffering from Nervous Depression. Each Biscuit contains five grains of the Hypophosphite of Lime. "Quite free from disagreeable taste, and taken willingly by Children, and certainly provide an excellent means of administering this valuable compound. Our analysis proves the accuracy of the printed descriptions on the labels of the boxes. The Biscuits were suggested by Mr. W. Adams, of the Orthopædic and Great Northern Hospitals." — *Lancet*, Nov. 4, 1876.—Van Abbott, 5, Princes-street, Cavendish-square.—[Advt.]

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

MOUTH-WASHES.

The following formulæ are published by Ad. Vomácka in the *Seifenfabrikant*:—Guaiacum wood, 30 parts; Valerian root, 30; Staranise, 40; cloves, 20; cochineal, 10; borax, 3; Cognac, 1500; oil of cloves, 2·5; oil of sassafras, 2·5; oil of neroli, 1; oil of peppermint, 4·5; vanilla, 10; rose water, 300; glycerine, 100 parts. Digest the guaiacum wood, valerian, cloves, and staranise in 1,000 parts, and the ethereal oils and finely-cut vanilla in 500 parts of the Cognac during fourteen days. Then express and mix. Having digested the cochineal in the rose water and glycerine in which the borax had previously been dissolved, add this mixture to the former. Let the whole stand for some time in a cool place, then filter through a double filter. This is a most superior mouth-wash, though rather more expensive than the following ones:—

Eau dentrifice (Dr. Pierre, Paris):—Tincture of cedar wood, 300 parts; oil of peppermint, 1 part; oil of anise, 1 part. Tincture of cedar wood is prepared by digesting one part of the chips of cedar wood (obtainable in lead pencil and other factories) with five parts of cognac.

Salicylic Acid Mouth-Wash (Kolbe):—Salicylic acid, 180 grains; distilled water, 2 fl. oz.; cognac, 10 fl. oz.; oil of wintergreen, 10 drops; spirit of neroli, 20 drops.

Eau de Botot:—Tincture of cedar wood, 400 parts; tincture of rhatany, 100 parts; oil of peppermint, 3 parts; oil of lavender, 1·5 parts; oil of staranise, 2 parts. Tincture of rhatany is prepared like the officinal tincture of krameria, only that cognac is substituted for diluted alcohol. In all of the above preparations diluted alcohol may be used in place of cognac, but the products are not so fine as when the latter is used.

MEAD.

Mead is an old-fashioned beverage, but a very pleasant one, if care is taken in making it. It is generally made over strong, too much honey being used to the proportion of water. The following is a good recipe:—(1) On 30 lb. of honey (clarified) pour 13 gallons of soft water, boiling hot; clarify with the whites of egg well beaten, boil again, remove all scum as it rises, add 1 oz. of best hops, and boil for ten minutes, then pour the liquor into a tub to cool, spreading a slice of toast on both sides with yeast, and putting it into the tub when the liquor is nearly cold; the tub should stand in a warm room. When fermentation has thoroughly begun, pour the mixture into a cask, and, as it works off, fill up the cask, keeping back some of the liquor for this purpose. Bung down closely when fermentation has ceased, leaving a peg-hole, which can be closed up in a few days. Let it remain a year in the cask before bottling off. (2) To 15 lb. of honey add 6 gallons of water, clarify the honey with white of eggs, boil for ten minutes, and keep thoroughly skimmed; add a handful of mixed herbs, thyme, rosemary tops, and bay leaves; boil for half an hour more. Strain the mixture into a tub upon 5 pints of ground malt, stir well together, and, when lukewarm, strain through a cloth into another tub. Work it with yeast, and, when

The "Spécialité" Lime Juice, for family daily use throughout the year, has not the usual musty flavour; will not turn mouldy; may be obtained of Chemists and Grocers.—Feltoe & Sons, Albemarle-street, London, W.—[Advt.]

fermentation is set up, pour it into a cask. Suspend in the cask a muslin bag containing sliced ginger ½ oz., ¼ oz. each cloves, nutmeg, and mace, well bruised; bung up tightly when it has ceased working, letting the bag of spices remain. It should stand in the wood for a year, and then be bottled off.

Sack Mead.—To every gallon of water allow 4 lb. of honey; boil for three-quarters of an hour, skimming well; to each gallon of liquor add ½ oz. of hops, boil again for a quarter of an hour, pour it into a tub, and let stand for 24 hours, working with yeast; then pour into the cask, and to 13 gallons of liquor allow a quart of sack; close lightly until all fermentation has ceased, then bung up close. If a large cask, allow a year in work before bottling off.

American Mead is made with cider. Take 20 lb. of honey and 12 gals. of good cider, and blend them together in a tub; ferment with yeast, then pour into a cask and add ½ gal. of rum, ½ gal. of French brandy, 4 oz. of red tartar, dissolved, and ½ oz. of cloves. Bung down close when it has ceased working, and bottle off at the end of three months. It will be fit for use three months afterwards.

During the year 1882 typhoid fever caused in Paris 3,276 deaths, out of a total number of 58,674. In 1881 the deaths were 2,120, out of a total of 56,820. Thus, the mortality from typhoid fever was greater by 1 per 1,000 in 1882 than in the preceding year. Moreover, during the past ten years, the total number of deaths has presented a progressive increase. Ten years ago the mortality oscillated between 21 and 23 per 1,000, in 1881 it was 25·37 per 1,000, and in 1882 it was 26·55 per 1,000. Of the 3,276 deaths due to typhoid fever last year, 1,449 occurred in the hospitals and 1,827 at home. The number of cases in the hospitals was 9,361, equal to a mortality of 15·47 per cent. The total cases treated were in hospital for an aggregate period of 240,083 days, giving an average to each of 25 days. Each day's treatment costs the authorities 3 fr. 10 c., making a total cost of 744,257 fr. for the whole number. But it is manifest that the three weeks' treatment in the hospital does not represent more than a part of the time during which the patients would be withdrawn from their occupations. It is not too much to estimate the total incapacity resulting from an attack of typhoid fever at two months—one month of illness, and one of convalescence. Now, the municipal statistics of Paris show that more than a third of the victims were men between fifteen and thirty-five years of age, the exact proportion between these ages being 39·43 per cent. It cannot be an excessive estimate to value the labour of these men at 2 fr. a day, taking one with another. The two months each would give a total of 563,660 working days lost by the 9,361 patients, and correspond to a sum of 1,127,320 fr. to add to the 744,257 fr. expended by the authorities in their treatment, making a total for the hospital cases of 1,871,570 fr.

Dr. Nichols' Penny Vegetarian Cookery-Book.—Every household should possess this marvel of cheapness. Free for 1½d.—Nichols & Co., 23, Oxford-street, London, W.—[Advt.]

The "Boncontour" Stay-Belt and other Orthopædic Apparatus, made by K. R. Schramm, Orthopædic Mechanician, 64, Belmont-street, Chalk Farm-road, London, W.—[Advt.]

Scott's Midlothian Oat-Flour.—There is no preparation which can be assimilated with greater facility than such a flour as this. Those who suffer from indigestion might substitute for their ordinary breakfast materials this flour, prepared according to the recipe given by Messrs. Scott and printed on the tins.—Ed. Health.—[Advt.]

The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

ECONOMICAL BREAKFASTS, DINNERS, AND SUPPERS.

By Mrs. Thwaites, of Liverpool.

FIRST PAPER.

In these days of general improvement it would be hard indeed if cookery were to be left behind. Although a great deal has been done to improve it by lectures, classes, and new cookery-books, much yet remains to be accomplished. Few Englishwomen of the middle and working classes can prepare the cheap, appetising dishes that Frenchwomen are in the habit of fabricating every day. There is a great deal too much conservatism in our cookery—a shrinking from new things and new ideas. Whatever is cheap and good should be tried at once, and no pains spared to make the most of it. Seeing how largely the health and consequent well-being of the nation depends upon the food eaten, it is plain that the subject is an all-important one. Part of every woman's education should be not only how to select the best and most useful articles of food, but how to use them and turn them to suitable account.

Breakfast, to many the most important meal of the day, is, perhaps, the worst prepared of all. The conventional tea or coffee and bread and butter, or bacon, exclude all variety. *Dinner* is not so bad, its chief fault being its sameness, and a tendency to have the same joint of meat all the year round, cheap soups and dishes, composed of vegetables, being almost unknown, except at the tables of the wealthy. *Supper* is, in the main, too heavy a meal, and by no means calculated to insure good digestion and rest.

The breakfasts, dinners, and suppers given in this series of papers are planned not only with the hope that they may prove useful in themselves, but that the suggestions thrown out may lead to fresh ideas as to how available materials may be used up profitably. True economy means thought and knowledge on the part of the mistress of every household. The various wants of the family must be considered as well as cheapness of material and saving of labour and time. Working women know only too well, that their time and strength come to an end all too soon.

Breakfasts.—For this meal there can be no better dish than porridge of one kind or another—oatmeal, Indian and barley meals, hominy and ground rice, can all be used in turn. It is a fact worthy of notice that children accustomed to porridge retain their liking for it when grown up, while adults beginning to use it seldom have the same relish for it. Parents should consider this fact well. The preparations of the above-named cereals do not naturally differ from one another; they all require well boiling in plenty of water or milk. Oatmeal I place at the head of the list. Containing, as it does, sufficient for the healthy support and growth of the body, for its full development, both mentally and physically, too much attention can hardly be paid to it. Coarse oatmeal should be partly prepared overnight, both to insure perfect cooking of the grain and to economise time. Put a quart of water to boil, add a good teaspoonful of salt, sprinkle in about ½ lb. of meal, stir till it thickens and boils, draw the pan aside, and boil slowly for half-an-hour; set away until next morning, when enough

water to bring it to the desired consistency must be added, and it must be boiled slowly again for twenty to thirty minutes. It is certainly best eaten with milk, but sugar, treacle, or stewed fruit are all good. If a warm beverage is necessary, freshly-made tea well diluted with milk may be taken; cocoa being more nutritious than tea, is best taken with less nutritious foods than oatmeal, but, of breakfasts, more in future papers.

Dinner.—Soup should, whenever possible, form the basis of this meal. It is cheap, and easily prepared. In cold weather no kind of food so quickly restores warmth as this. Lentil soup is one of the best and cheapest. Wash ¾ lb. lentils well in several waters, put them into a pan with 2 quarts of cold water, a good-sized onion, and two or three outside stalks of celery. Boil 1½ to 2 hours; turn the whole out on the back of wire sieve put over a bowl, rub all through the sieve but the husks; put the soup into a pan, and mix 1 oz. flour smoothly with ½ pint milk, 1½ teaspoonfuls of salt, and ¼ teaspoonful of pepper; add to the soup and boil up. If desired ½ oz. of butter may be stirred in. Plenty of this soup, with home-made bread, would be a sufficient dinner for children. Lentils contain about 24 per cent. of nitrogenous or actual flesh-forming substance, and although they can be prepared as a solid food, popular taste has decided in favour of soup.

Meat roasted in a saucepan.—When only a small piece is wanted, this is a cheap and good way of preparing it, less fuel being required than for baking in the oven or roasting in front of the fire. A tiny gas-stove, with the gas turned as low as possible, will do it admirably. An old iron pan, with the tin worn off, should be used, with a close-fitting lid. Take 1½ lb. to 2 lb. of mutton or pork, or even 1 lb. of steak—if the latter, it must be rolled up and secured with a small skewer. A little fat should be cut off the meat and put into the pan to melt; the meat must then be lightly floured and put in, and the lid put over. A little practice will soon enable anyone to regulate the heat, and baste and turn the meat when necessary. To make the gravy—mix half a tablespoonful of flour smoothly with a quarter of a pint of water and a little salt. When the meat is taken up, pour off all the fat but about a teaspoonful, pour in the flour and water, stir till it is boiled thick, and pour round the meat. 2 lb. will take about three-quarters of an hour, if it is in a compact shape. If carefully cooked, this will have the flavour and smell peculiar to roast meat. Small birds can be prepared in a similar way.

Supper.—A useful and pleasant supper dish is stewed Spanish onions. Take four or five medium-sized onions, peel and put them on to boil with water to cover and a teaspoonful of salt, boil slowly for one and a half hours, take out the onions without breaking; set aside the water. Put 1 oz. butter into the pan, when melted add 1 oz. flour, slightly brown the flour, then stir in ¼ pint of the water in which the onions were boiled (the rest will be saved for soup) and ¼ pint milk; stir until thick, and season with salt, pepper, and a tablespoonful of ketchup; put the onions into this sauce, cover the pan, and simmer very slowly for one hour longer; take them up into a dish and pour the sauce round. Thoroughly-cooked Spanish onions are digestible, and they have a slight effect in inducing sleep.

A Valuable Invention.—It is gratifying to learn that Mr. R. Adams, of 17, Blackman-street, London, S.E., whose fanlight-openers and silent door-springs are being extensively used, has received large orders for his Patent Reversible Window. The sashes, although they slide up and down in the usual way, can be instantly turned inside out, enabling anyone to clean each side of the glass with ease, while standing in the room.—[Advt.]

ARE NICKEL-PLATED COOKING AND EATING UTENSILS POISONOUS?

Nickeled utensils were first made more than thirty years ago by the late Professor Boettger, but have recently become more popular, owing to the success that has attended Dr. Fleitmann's attempts to work nickel on a large scale, especially of malleable nickel that can be rolled. The increased favour which this brilliant silver-white metal has met with recently has given rise to the question of its poisonous quality. Dr. Fleitmann does not consider the metal as poisonous. The *Polytech. Notizblatt*, formerly edited by Dr. Boettger, thus discusses the interesting question:—

At the present time metallic nickel and its salts are prepared in a very pure state, the copper and arsenic frequently present in nickel ores are almost completely removed. Especial care is taken to remove the arsenic, because it would injure the colour of the nickel plate.

In regard to the supposed poisonous nature of nickel, it may be remarked that nickel and copper alloys have long been in use for domestic utensils, as well as copper itself. Such vessels must, of course, be protected from acids, and always kept clean and bright. When this is done none of the metal passes into a soluble form. All metallic salts are more or less poisonous; even the salts of iron, to which the salts of nickel are more nearly related than to those of copper, which are indeed quite poisonous. Metallic vessels should always be kept clean, and this is true of nickel too, and then there is no need to concern ourselves about its poisonous character. It would be very desirable to have thorough and careful experiments made upon the physiological action of nickel salts when in solution. Birnbaum has shown (in *Dingler's Journal*, ccxlix: 515) that solutions slightly acidified with acetic acid, as well as the juice of sour cherries, when left for some time in nickel vessels, take up considerable quantities of nickel, which confirms the view above expressed that acid solutions should be kept as far away as possible from all such utensils and vessels.

We may add that Dr. I. M. Da Costa has been experimenting with nickel salts for medicinal uses, and finds that they have some efficiency in doses of one or more grains three or four times a day. It does not produce the tonic effects of iron salts, but can scarcely be considered poisonous. The bromide can be substituted for other bromides, and in smaller doses.

Toothache Remedy.—A correspondent of the London *Electrician* gives the following as an instant remedy for toothache:—With a small piece of zinc and a bit of silver (any silver coin will do), the zinc placed on one side of the afflicted gum, and the silver on the other, by bringing the edges together, the small current of electricity generated, immediately and painlessly stops the toothache.

Hot Water in the Treatment of Colds.—Dr. George R. Sheppard, Hartford, Conn., says, in respect to the use of hot water as a remedial agent in the treatment of inflammation of the mucous membranes:—"I have used hot water as a gargle for the past six or eight years. In throat and tonsil inflammation, and in coryza (or cold in the head), if properly used in the commencement of the attack, it constitutes one of our most effective remedies, being frequently promptly curative. To be of service, it should be used in considerable quantity (a half-pint or a pint at a time), and just as hot as the throat will tolerate. I have seen many cases of acute disease thus aborted, and can commend the method with great confidence."

Recreation and Health

"Health is the vital principle of bliss,
And Exercise of health."—*Thomson.*

CALISTHENICS, OR LESSONS IN PHYSICAL EDUCATION.

By H. C. STANDAGE.

FIFTH PAPER.—BAR, WAND, AND DUMB-BELL EXERCISES.

"You were very explicit, Charles, in pointing out the inelegancies of many kinds of pedestrians, but you failed to tell us *how* to walk correctly?"

"Well, it is frequently as valuable to have pointed out to us what to avoid, as then we are less likely to fall into such errors, as it is to have simply laid before us the strict laws to follow in walking; but as you desire, my dear sister, to know what to follow as well as what to avoid, I will formulate a few rules that should be followed by all who wish to walk gracefully and with ease.

"In the first place, feel that you are at ease, do not have unnecessary restraint over any muscle. Some persons, if they are deep in thought or in a desperate hurry, let their mind have such undue influence over the muscles and sinews of their arms and lower limbs that their body becomes bathed in perspiration through such tension on their nerves. To such a person, walking is a positive injury under the circumstances. You see a person rushing to catch a train; his fingers are clenched, his eyes dilate, his breath comes short and quick, and his legs trot along in jerky, quick steps, that really impede rather than advance his progression; for every now and again he puts one foot down too short of the pavement, and he jerks and stumbles, jostling his fellow-pedestrians right and left. With reddened face and beads of perspiration dropping from his brow, he arrives at his destination thoroughly exhausted and out of breath. He is 'knocked up,' and requires an hour's rest to recruit his exhausted energies; yet this exhaustion is not brought about so much by the distance travelled, or the quickness of time taken in performing it, but is principally due to the mental excitement as to whether he will lose or catch his train, and this mental anxiety is communicated to the nerves, constraining the muscles, whereby they do not perform their work in a legitimate way."

"This is all very well, Charles, but you have not yet told us what I asked."

"No; but I want to insist, first of all, on the absolute necessity of letting the limbs have their natural play, for then they will be able to easily perform the following simple manœuvres:—In the first place, do not keep your back upright, and as stiff as if a board were fastened to it to strengthen it, but let the body incline slightly to the front, not leaning forward, nor the head pointing forward, as if about to ram any one therewith. This mode was partly in vogue when the 'Grecian Bend' was in 'fashion' some years ago. The human body then, from toe to head, had much the crescent appearance of a new moon when the person was looked at sideways. The upper part of the body is inclined slightly forward, for this reason:—In the act of walking and running, the centre of gravity is removed from immediately beneath the trunk, and is brought somewhat to the front, because the lower limbs are thrust forward from beneath the trunk, and therefore to preserve the equilibrium the upper part of the body should also be inclined to the front. This may be made clearer to the reader by taking the case of a person rising from a chair. When seated, the whole weight and therefore centre of gravity of the body falls somewhere on the seat of the chair; consequently, in rising, the person leans forward to bring this centre of gravity over the knees, when the muscles of the legs permit him to rise up perpendicular without falling backwards, just as a corpulent person leans backwards to prevent his corpulent body pitching him forward.

"The best rule to follow in walking is, let the lower limbs be lifted upwards, and put forward easily. This is done by letting every extensor muscle be relaxed, and every joint mobile and free, while the whole weight of the body is thrown on to the stationary limb. To prevent the person leaning over outwards when this limb takes the weight of the body, the muscles of the limb are brought into use. This is easily shown thus, let the reader stand on one leg and raise the other, and advance it to the front or rear; if he have not learnt the balance, or goose step, he will naturally lean towards the outside of the leg he is standing on. The third point to pay attention to in good walking is to place the foot flat, but not all at once, on the ground. The heel is the first to meet the ground. It has been provided by nature with a hard, tough substance capable of bearing the shock or jar incident on striking the ground. The heel rests but a second, when the pressure is taken up by the ball and then the toes. If you attempt to walk flat-footed by dabbing down heel and toe together, the legs will strike and leave the pavement somewhat in the manner of a pair of crutches used by a cripple. If you attend a walking match, observe how the performers appear to dig or strike their heels into the ground, the toes appearing to point upwards. You must remember that in walking you are not moving by a succession of starts and pauses, but that the body is in a continual moving state, and that the easiest and quietest mode of progression will help not hinder this continual 'move on' of the body. Thus, when the right heel strikes the ground the body is slightly behind it, resting on the left leg, by the time the ball of the foot presses the ground the body is immediately over the right heel, and by the time the toes leave the ground, the body is leaning slightly forward over them, with the left leg just ready to be brought forward. For ease in walking, the arms may be allowed to swing in front and rear alternately with each leg, as this will prevent all restraint on the muscles of the arms. It is only the well-drilled person, however, who can keep the arms perfectly motionless and straight by the side; but for artistic grace such stilted and rigid appearance presented by the body is best avoided by means of a gentle yet undemonstrative swing of the arms, keeping, however, the shoulders steady."

"You recently* made some contemptuous remarks of people's idiosyncrasies in walking. How would it affect such persons were they to try and conform to the rules you have just set forth?"

"On that point I had better quote to you what Maclaren says, although I may premise that some improvement to their mode of progression will be made should the

SCOTT'S MIDLOTHIAN OAT-FLOUR.—Messrs. Scott, of 82, York-street, Glasgow, have prepared a singularly pure and nutritious "Oat-flour," which bids fair to take high rank among the food products which are specially adapted for infants and invalids, and for the use of dyspeptics in particular, whose digestion is weak, and whose stomachs refuse to assimilate foods of ordinary kind.—ED. HEALTH.—[ADVT.]

* See "Second Paper," HEALTH, No. 45.

above simple rules be followed. However, this is Maclaren's observation :—

"'It is found than many men from organisation or habit have a mannerism, *i.e.*, a special mode of gait, action or preserving position, which although an error on *general* grounds, has, from such special causes, become serviceable to them, and which to alter would often be to reduce not add to their power. Where such distinctive mannerisms exist the aim should rather be to cultivate the natural capacities in their particular style of execution to its highest point.'

"In walking, I may add, that the breathing should be regular and the breath drawn through the nostrils, not through the mouth. Many 'colds' on the chest, and the first seeds of 'consumption' are frequently laid by inhaling a cold damp air directly on to the lungs, through taking it in through the mouth, whereas, by inhaling through the natural breathing organ, the nose, all dust is arrested by the hairs in the nostrils, and the air is warmed by its passage through various canals, before reaching the lungs. Now and again a breath drawn deep into the stomach affords a wonderful relief to the walker, owing to the expulsion thereby of the residuum of unexpired air that accumulates from every inspiration."

"Now that you have satisfied my curiosity, Charles, regarding how to walk properly, you will, perhaps, tell me what exercise you intend to put us through to-day?"

"Are you all ready?"

"Oh, yes, the girls* are waiting."

"Well, what I propose to instruct you in now is the 'Wand' exercise, but as you have no walking-sticks, and umbrellas are too cumbersome, I will lend you some of my disused insignia of idleness."

"What do you mean, Charles, by that?"

"Why, it is my term for a 'walking-stick.' You never see a business man encumber himself with a prop to propel himself along with, it is only idlers who use them; to such a stick is a boon, it keeps his hands out of his pockets, and the knob or handle afford him something to suck when he is at a loss what to do or say, like his empty-headed prototype, the sheep, which chews the cud even when not grazing, so the crutch-and-toothpick, pointed-toe exquisite stares at vacance and sucks his stick like a child would a sugar-stick."

"Sarcastic again."

"Nevertheless true. However, let us not do likewise. Occupy ourselves with something more useful. Go and collect the other girls, and I'll be with you with the sticks in a minute."

(To be continued.)

Dr. Holmes relates the following to illustrate the significance of small things in the sickroom:—"Will you have an orange or a fig?" said Dr. James Jackson to a fine little boy now grown up to goodly stature. "A fig," answered Master Theodore, with alacrity. "No fever there," said the good doctor, "or he would certainly have said an orange."

Remedy for Cramps.—A writer in the *British Medical Journal* declares that the elevation of the head of the bed, by placing under each leg a block of the thickness of two bricks, is an effective remedy for cramps. Patients who have suffered at night, crying aloud with pain, have found this plan to afford immediate, certain, and permanent relief.

* Perhaps it is as well to explain to the reader, that I adopt the supposititious case of talking *vivâ voce* to a class of girls, since such a supposititious case enables me to lay before my readers the otherwise dry details in a more interesting manner.

KNEE-BREECHES FOR LABOURERS.

Fashion, notwithstanding its caprices, is subject to the controlling influences of the sense of comfort and that of appearance. We may say that of these the former influence, on the whole, predominates in the dress customs of the male, and the latter in those of the female sex. On this hypothesis, one can understand how a desire for warmth, developing with the growth of civilisation, has led our countrymen, or most of them, as well as our Continental neighbours, to abandon various cooler and lighter, and even more wholesome, modes of covering the nether extremities, for that of our own day, which is probably as inelegant, and sometimes as inconvenient, as it is protective. We have left behind us the British kilt, the Saxon leg-swathing, the thigh-breeches, the knee-breeches, and have put on trousers. Ours is the century of long clothes. It may be questioned whether we have gained much by the change. Some, indeed, of our ancestral garments may, by this time, be too long out of date to be recoverable. The kilt and leg-bandage, for example, are separated from us, not only by centuries of disuse, but by differences of sentiment and occupation between our time and theirs, which must render their revival in any general sense well nigh impossible. The Elizabethan costume is in the same position; but the short clothes of the Georgian era still hold an established place among varieties of dress, though not that of the governing type. They seem to form the chosen habit of those whose lives abound in muscular movement. Thus they set the fashion of boyhood in the knickerbocker suit; they commend themselves to athletes, and especially to those of them who run much; farm-labourers often wear them; the infantry soldiers of more than one Great Power find them serviceable. Might they not be even more commonly worn in civil life than they are? We think so; and though we cannot here follow all the intricacies of an argument as to whether or not knee-breeches are, on the whole, more seemly and convenient than trousers, whether the use of the latter should not be conceded to the man of unshapely limbs, and so forth; still, it seems to us that in certain conditions, at all events, the elder costume might be adopted with advantage. Speaking broadly, we may say that all callings which entail much physical exertion would profit by the change. In particular, this is true of labour in the open air. In this form of work especially, where there is frequent and prolonged movement of joint and muscle, the weight of surplus clothing soon occasions weariness, and the surroundings are not the most cleanly. The labourer, if knee-breeched and gaitered, would be disencumbered of as much heavy moleskin or corduroy as would otherwise fall below the knee, a part of his clothing would not then as now flap about the feet to no good purpose, but to be soiled by the mire of his work, or in wet and cold weather to lead to illness by chilling or freezing on the legs. Gaiters of some close and not too heavy material might be worn over the stockings. They would be comparatively out of the way of dirt, would maintain warmth, would brace the muscles by equal and moderate pressure (a noteworthy consideration with men who are much on their feet), and if wetted might be easily removed and replaced by another pair. If some such reversion to a prior type were brought about in the dress of workmen, the change, being one of arrangement even more than of quantity of clothing, would enhance the comfort, facility, and effect of their exertions without prejudice to their health. It is at least suggestive that many workmen do endeavour by various devices, such as leggings, straw ropes, and the like, to make as little of their trousers below the knee as possible.—*Lancet.*

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

Voice, Song, and Speech. A Practical Guide for Singers and Speakers, from the Combined View of Vocal Surgeon and Voice-trainer. By Lennox Browne, F.R.C.S.E., and Emil Behnke. (London: Sampson Low, Marston, Searle, & Rivington.) 1883.

(*Concluded.*)

It is in the section on the larynx that we find some cause for disappointment. The authors (or author?) are not satisfied with the nomenclature of the old anatomists, and have endeavoured to modernise the names of the cartilages and muscles. We are ready to admit that the names when first given were arbitrary; but long usage has so accustomed us to them that it takes some little time to remember where we are when we read of the "back" or "side ring-pyramids," "ring-shield" and "shield-pyramid" muscles. Doubtless in most cases they are but translations of the Greek names; but in their English garb they look strange. If there were any difficulty in understanding the scientific terms, surely the reader of such a book as Mr. Browne's and Mr. Behnke's is not so unlearned that he cannot refer to an etymological dictionary. Further, the continual recurrence of the new nomenclature will, we think, make it difficult for the ordinary reader to understand another work in which the old terms are adhered to. Still less do we admire the term "vocal ligaments" instead of "vocal bands" or "vocal cords." The arguments adduced in its favour are not convincing. With these exceptions, and a certain want of clearness in describing some of the laryngeal muscles, the section gives a very good account of the various parts, cartilages, muscles, cords, &c., which go to form the voice-box. In the next section the resonance apparatus, including the upper part of the throat, the mouth, and the nose, is described, after which the differences of the larynx in children, women, and men are explained. In women the organ is shown to be one-third smaller than in men; its cartilages are thinner and more delicate; there is no Adam's apple—the cartilage which forms it being rounded off instead of projecting, and the position of the organ in the throat is higher. In discussing the human voice as a musical instrument, our authors come to the very sensible conclusion that the larynx is neither a string flute-pipe nor reed instrument, nor a combination of them. It is, in fact, *sui generis.*

The chief physical cause of the division of voices into soprano, contralto, tenor, and bass is shown to exist in the differences of the vocal cords (or ligaments), these being relatively longer, wider, and thicker in the larynges which produce the low notes. The hygienic aspect of the vocal apparatus is then treated of, the faults of continued mouth-breathing and tight-lacing being especially emphasised. It is most important that in every circumstance in which it can be done, the proper passages, *i.e.*, the nasal, should be used in breathing. In speaking and singing this is not always possible; but, in almost every other instance, mouth-breathing can be avoided. In commenting on the evils of a tight corset, our authors quote at some length the excellent remarks on "Dress," by Mr. Bernard Roth. The deformity caused by tight-lacing, he points out, "occurs so gradually during years of growth, that the wearer is generally quite unconscious of having disfigured herself; and I have never yet met with a lady who owned to having a tight pair of stays. 'I can put my whole hand inside,' is the usual reply when I find fault with a patient. This is generally quite true; for, by drawing in the abdominal muscles, which act upon the anterior extremities of the ribs, by raising the diaphragm, and by slightly inclining the body forwards, the girth of the trunk can be still further diminished. The real test is to have the stays opened and all other constricting bands loosened, and to request the patient to breathe deeply and slowly a few times, with the arms directed upwards, if necessary, and then to ask her to fasten the *outer* dress alone while holding the body as erect as possible."

Ladies who think it necessary to wear a corset may be glad to learn that our authors recommend for their use a "hygienic corset." They, however, take the precaution of saying that if a woman has not worn stays in childhood, she may do without them in adult life. The material used may be "coutil" for those inclined to *embonpoint*, for others a light twill. The form should be that of a slip-bodice, buttoned, not laced, in front, with a strip of thin elastic webbing at either side under the arms, and a piece of whalebone, or very light flexible steel, on either side of the spine. "The waist and chest measure should be taken while the lady or child to be fitted is standing with head, shoulder-blades, and heels *all touching a wall*, the body being held very erect, and the tips of the fingers of each hand placed as far on the back of the shoulders as possible. Every woman should be able to fasten her under-bodices and dresses while standing erect against a wall. If once properly fitted, there is no rational excuse for tightening or for varying the calibre of a corset." The importance of attending to a proper and healthy mode of breathing is emphasised by the paraphrase of an old proverb, "Take care of the lungs, and the voice will take care of itself." The laryngoscope and its teachings are next explained. This portion of the work is illustrated by a series of diagrams and photographs showing the laryngoscopic appearances in the different registers. The photographs are the most successful that have yet been made.

The remainder of the book deals with voice cultivation, the daily life of a voice-user, the ailments of the voice-user, and defects in speech (stammering and stuttering). Certain exercises, the purpose of which is to teach the pupil to breathe correctly, and to enable him to have readily under control the various muscles required to alter the size or shape of the resonating cavity, are described and recommended. The faults of the stooping position so common to clergymen are dwelt on. They are easily avoided by a maintenance of the erect posture. In the "daily life of a voice-user" recommendations are given as to residence, ablutions, including baths, clothing, diet, exercise, and amusements. Ladies' dress is again brought up for discussion, and a special hygienic combination under-garment, made by Messrs. Ward & Co., Ilkley, is recommended. It "consists (1) of a special woven and shaded combination reaching from neck to ankles and wrists. This is supplied in three materials—silk-gauze, merino, and lamb-wool; (2) stockings drawn on *over* the combination. Garters are not usually required, as the stockings cling closely to the combination; but where any difficulty is experienced the stocking-suspender can be used. Next to the combination

Pownceby's Pure Wines and Brandies, as analysed, and especially selected to suit medicinal purposes, may be obtained in small quantities at wholesale prices. Free delivery within fifty miles. Circular and price current by post from Pownceby & Co., Wine and Brandy Importers, 183, Oxford-street London, W.—[Advt.]

Pure Water is such a vital necessity that, without it, illness is certain. None are more prone to the ill effects when impure than the young. To ensure a pure supply send a post-card to the London and General Water Purifying Company, Limited, 157, Strand, London, W.C., who will return particulars post free.—[Advt.]

is worn (3) a pair of knickerbockers, which reach to just below the knees, carefully cut to the figure, with no superfluous fulness. This garment can be made of almost any material, according to individual taste. The knickerbockers button at the sides, thus securing complete immunity from draughts and chills from changes of temperature; the entire weight should be buttoned to a bodice. (4) An ordinary petticoat bodice completes the underclothing." As to diet, the singer is advised not to take a meal immediately before he is called on to exercise his vocal powers. A number of articles are mentioned in order that their use may be avoided. These include the majority of root-vegetables, fat of pork and salted provisions, salmon and eels, nuts, hot peppers, hot pickles, and curries. Alcohol is neither entirely forbidden nor recommended. If used at all, it should be in the form of a light wine at the end of the day's work. The use of tobacco is left to the individual taste, but snuff taking is absolutely condemned. The ailments of the voice-user are treated of shortly, these being especially cold, sore or relaxed throat, clergyman's sore throat, elongated uvula, enlarged tonsils, &c. Excision of enlarged tonsils is recommended. "Louisa Pyne, Patti, Lucca, and others have undergone the operation, not only without injury, but with actual benefits." The faults which lie at the bottom of stammering and stuttering are next pointed out, and the best means of remedying them explained. We think we have now said sufficient to indicate the character of this book. It is a work well worth having, but the elaborate manner in which it has been got up makes it too dear to be as popular as we would like to see it.

National Health Society.—The Worshipful Company of Clothworkers has been pleased to grant a donation of £21 to the National Health Society, 44, Berners-street, W.

A Supposed Poisonous Seaweed.—In the summer of last year many cattle and hogs died in the vicinity of Waterville, Minn. Residents in the locality believed that the animals were poisoned by drinking the water of adjoining lakes. There are two lakes of considerable size in the neighbourhood; they are free from marsh, and have wooded borders; through them runs a somewhat sluggish river. At the time of the occurrence the lakes showed a quantity of dark-green scum on the surface, as well as disseminated through the water. The surface-layers of the scum were in places several inches thick. The scum proved to be a waterweed, having some characteristics like those of the nostoc, but is known to botanists as *Rivularia fluitans*, and has been described by Cohn, a European naturalist. The plant is spoken of by the author of this paper as a seaweed; he supposed it did not occur in this country elsewhere than in Minnesota, and it is not frequent in Europe. Last year Mr. Arthur visited the locality of the occurrence, and he repeated his visit this summer; but in each instance too late in the season to examine the scum *in situ*. It appears to be composed of innumerable small round bulbs of a transparent gelatinous substance, which are filled with a dark-green material. After they first begin to be seen on the water, the bulbs increase in number with marvellous rapidity. In about two weeks they begin to decay, and their entire disappearance quickly ensues. These phenomena take place usually in June. As no actual experiments have been made upon animals, the deadly qualities ascribed to the so-called seaweed are as yet a matter of conjecture, though the reported facts tend strongly to strengthen the belief that the plant is poisonous.

International Health Exhibition.

LONDON, 1884.

THIRD PAPER.

CLASSIFICATION OF EXHIBITS.

Division I.—Health.

Group 1.—*FOOD.*

Class 1. Selected Displays of Unprepared Animal and Vegetable Substances used as Food in various countries. Stuffed Specimens of Animals, Birds, &c. Models, Drawings, and Illustrations of the same.

,, 2. Prepared Vegetable Substances used as Food, including Tinned, Compressed, and Preserved Fruits and Vegetables. Bread, Cakes, and Biscuits of all kinds. Tobacco.

,, 3. Prepared Animal Substances used as Food in a preserved form—Tinned, Smoked, Salted, Compressed, and Prepared Animal Foods of all kinds; Food produced by Insects, such as Honey, &c.

,, 4. Beverages of all kinds—(*a*) Alcoholic; (*b*) Non-alcoholic; (*c*) Infusions (tea, coffee, cocoa, chocolate, &c.).

,, 5. New Varieties of Food. Food for Infants, Food for Invalids, New Concentrated Foods of all kinds.

,, 6. Cookery Practically Demonstrated. Economical Cooking, Workmen's and other Kitchens, Cheap Restaurants, Bakeries, Cafés, Foreign Cookery, &c.*

,, 7. The Chemistry and Physiology of Food and Drink. The Detection of Adulteration, Materials used as Adulterants, Analysis, Food Constituents and Equivalents, Tables, Diagrams, &c.

,, 8. Diseases due to unwholsome and improper food. Drawings and Models of Animal and Vegetable Parasites, &c.

,, 9. Practical Dietetics. Army and Navy Rations, Prison and Workhouse Diet, Foreign Dietaries, &c.

,, 10. Publications and Literature, Models and Diagrams relating to Group 1.

,, 11. Apparatus and Processes for Conserving, Storing, Conveying, and Distributing Fresh Food of all kinds.

,, 12. Machinery and Appliances for the preparation of Articles under Group 1.

Group 2.—*DRESS.*

Class 13. Collections illustrative of the History of Dress, National Costume, &c.

,, 14. Waterproof Clothing, India-rubber, Gutta-percha, &c.

,, 15. Furs, Skins, and Feathers. Dresses for Extreme Climates, &c.

,, 16. Dress for Sport, Hunting Suits, &c.

,, 17. Life-saving Dress. Divers' Dress. Fireproof Dress.

,, 17A. The Comparative Value of different Dress Materials for Articles of Clothing.

,, 18. Publications and Literature, Patterns, Statistics, Diagrams, Models relating to Group 2.

,, 19. Machinery and Appliances for the preparation o Articles under Group 2.

Group 3.—*THE DWELLING-HOUSE.*

Class 20. Dwellings, Models and Designs for the same, and Specimens of Buildings erected in the grounds. Fittings and Accessories for Dwelling-houses. Completely-fitted Apartments.

,, 21. Water Supply and Purification. — Meters, Filters, Water-Fittings, Cisterns, &c.

,, 22. House Drains, their Construction and Ventilation.—Sewer disconnection; Sinks, Traps, Gullies; the Disposal and Utilisation of House Refuse.

,, 23. Water and Earth Closets, Ash Closets, Commodes, Urinals, Disinfecting Powders and Fluids. Insect Destroyers.

,, 24. Grates, Stoves, Kitcheners, Ranges, Boilers, &c., for Domestic Use. Apparatus for Heating and Warming. Smoke Abatement, &c.

,, 25. Ventilators, Air Inlets and Outlets, Cubic Space of Rooms, Cowls, Air Straining and Cleansing.

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* *Special Notice.*—As Refreshments come within the scope of this Exhibition, all methods of preparing the same, whether by cookery or otherwise, and the display and sale thereof, will be matters of separate arrangement with those wishing to be represented in this section of the Exhibition.

Group 3.—THE DWELLING-HOUSE (continued).

Class 26. Lighting Apparatus.—(*a*) Electrical Apparatus for Illumination and Domestic Use, Secondary Batteries, Electroliers, Accumulators, &c.; (*b*) Apparatus for lighting by Gas, Gas Producers, Gas-Meters, Gas-Fittings, Chandeliers, &c.; (*c*) Oil and other Lamps; Mineral Oil, Wax, and other Candles, Vegetable and Animal Oils.

„ 27. Fire-Prevention Apparatus—Extincteurs, Portable Engines, Domestic Fire-escapes, &c.

„ 28. Materials for Sanitary House Construction—Roofs, Walls, Damp Courses, Solid Floors, Damp-Proof Wall-Coverings, Cements, &c.

„ 29. Materials for Sanitary House Decoration, Non-poisonous Paints and Wall-papers, Floor Coverings, Washable Decoration, &c.

„ 30. Objects for Internal Decoration and use in the Dwelling. Fittings and Furniture.

„ 31. Baths, Bathing Requisites, Public and Private Wash-houses, Washing Apparatus, Detergents, Appliances for Personal Cleanliness, &c.

„ 32. Publications and Literature, Models, Pictures, Diagrams, &c., relating to Group 3.

„ 33. Machinery and Appliances relating to Group 3.

Group 3a.—AMBULANCE.

Class 31A. Aid to Sick and Wounded in War. Transport. (*a*) *By Human Agency;* Stretchers, Litters, Dhoolies, Palanquins, Handcarts, Stretchers on Wheels. (*b*) *By Animal Traction;* Mule Litters and Chairs, Camel and Elephant Litters, Wheel Carriages. (*c*) *By Mechanical Means;* Railway Ambulances, Ship or Water Carriage. Treatment (with portable appliances and portable drugs). (*a*) On the Field. (*b*) In Hut Hospitals. (*c*) In Tent Hospitals. Naval and Military Hygiene.

„ 31B. Aid to Sick and Injured in Peace. Transport. (*a*) *By Human Agency;* Stretchers, Litters, Dhoolies, Palanquins, Handcarts. (*b*) *By Animal Traction;* for Accidents and Injuries, for Infectious Diseases, for Ordinary Sickness. (*c*) *By Mechanical Means;* Railway-carriages for Sick and Invalids, Water Carriage. Treatment (with appliances). (*a*) Hut Hospitals for Infectious Fevers and for Epidemic Diseases. (*b*) Tent Hospitals. (*c*) Hospital Ships. (*d*) Furniture and Fittings for Sick Rooms.

Group 4.—THE SCHOOL.

Class 34. Designs and Models of Improved Buildings for Elementary Schools, Infant-schools, and Crèches.

„ 35. Apparatus and Fittings for Warming, Ventilating, and Lighting Schools, School Latrines, Closets, &c.

„ 36. Special School Fittings for Storing and Drying Clothing.

„ 37. School Kitchens and Arrangements for School Canteens. Methods of Warming Children's Meals, &c.

„ 38. Precaution in Schools for Preventing the spread of Infectious Diseases, School Sanitoria, Infirmaries, &c.

„ 39. Special Apparatus for Physical Training in Schools, Gymnasia, Apparatus for Exercise, Drill, &c.

„ 40. Literature, Statistics, Diagrams, &c., relating to Group 4.

Group 5.—THE WORKSHOP.

Class 41. Designs and Models for Improvements in the Arrangements and Construction of Workshops, especially those in which dangerous or unwholesome processes are conducted.

„ 42. Apparatus and Fittings for preventing and minimising the danger to health or life from carrying on certain trades. Guards, Screens, Fans, Air-jets, Preservative Solutions, Washes, &c.

„ 43. Objects for Personal Use. Mouth-pieces, Spectacles, Dresses, Hoods, &c., for use in certain unhealthy and poisonous trades.

„ 44. Illustrations of Diseases and Deformities caused by unwholesome Trades and Professions. Methods of combating these diseases. Preservative measures, &c.

„ 45. Sanitary Construction and Inspection of Workshops, Factories, and Mines. (*a*) New Inventions or Improvements for ameliorating the condition of life of those engaged in unhealthy occupations. (*b*) Means of economising Human Labour in various Industrial operations.

„ 46. Literature, Statistics, Diagrams, &c., relating to Group 5.

Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to "The Editor of Health," *74-76, Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to* "The Publisher," *at the same address.*

LETTERS TO THE EDITOR.

THE DRESS CONTROVERSY.

Sir,—"Circumstances alter cases," quotes Miss Ballin. Granted. The "circumstances" with regard to women's dress are: General ignorance, first, as to the internal economy of the female body; secondly, as to its true beauty of form; and, thirdly, as to what is, or is not, decent with regard to its method of clothing.

The "cases" arising from these circumstances are fashions of dress, first, which obstruct the healthy working of the internal economy of the body, and impede the free action of the limbs; secondly, which disguise the beauty of its form and substitute deformity in its stead; and, thirdly, which, by setting up conventionality as the standard of decency in dress, lowers the tone both of true modesty and of morality.

Both "the leaders of the rival camps of dress reform" are endeavouring to alter these circumstances, so that the cases may alter too. When this is accomplished, we shall hear no more of the beauty of the corset-made figure nor of the shoe-cramped foot; nor, I hope, of the remarkable decency of petticoats.—Yours truly,

M. King.

Sir,—I have read with much interest the correspondence which has appeared in your valuable paper between Miss Ada S. Ballin and others on the question of dress, and I cannot but think the lady in question has been rather hardly treated by those who differ from her. In the first place, Miss Ballin is careful to point out that what is required in all clothing is *support* for all parts of the body, and not for the feet only, and this, moreover, without any undue pressure whatever. I do not see why parents can be blamed for seeing that their children's feet are put into boots which are at once a support and a defence against any unsightly outgrowth, any more than a gardener can be blamed for binding up and supporting the delicate sapling. Then, with regard to corsets, I think the question ought to be rather a tirade against rib-crushing than the actual wearing of corsets. There is a vast difference between wearing an easy, well-made, comfortable pair of stays, which will allow ample expansion of lung-power, and forcing one's waist into the regulation circumference of a fashion plate. Because there are poor misguided creatures who do this, and because there are also those who undergo something very like a daily amputation of the toes, in order to make "their feet beneath their petticoats like little mice peep in and out," I do not see why really sensible people should relinquish either their corsets or their boots—the one or the other.—I am, Sir, yours, &c., A Constant Reader.

QUERIES AND ANSWERS.

GENERAL.

Ibrax.—See Mr. Mattieu William's "note" in Health No. 47.

Toledo.—The spleen is a blood-gland, and is concerned in the elaboration of the elements of the blood. It increases in size towards the end of the process of digestion.

E. N. O.—Rest assured there is no danger in the course referred to.

B. Upton.—About 98·5° Fah. or 99°. Varies with food, exertion, &c.

Alga Marina.—See article on "Consumption" in No. 47.

Cecil George.—1. Cercaria is a small worm-like form, the early stage of a fluke. 2. "Cystic worms" was the old name for the imbedded "Scolices," or larvæ of tapeworms. 3. The trichina is not a tapeworm in any sense.

Brother.—Casein occurs as the nitrogenous part of milk.

Antiquary.—1. The legend of the child's caul (often advertised still for sale as a protection against death by drowning) is, we

believe, unknown—*i.e.*, as to its exact origin. 2. No part of the frog is used in medicine. Its hind legs are delicious, properly cooked. 3. You will find the information you seek in Miss Phipson's "Animal Lore of Shakespeare and his Contemporaries" (Kegan Paul & Co.).

Onto.—Yes, as stated in Dr. Wilson's first lecture at St. Leonard's on "The Skeleton," the limbs of all vertebrate animals are built upon one type. A man's arm, a bird's wing, and a horse's fore-leg are thus modifications of the same type.

F. B.—You will obtain the information you require by consulting *The Student's Numbers* of the *Lancet*, *British Medical Journal*, and *Edinburgh Medical Journal*, which are published in September or October of each year. Procure and study last year's numbers.

Puzzled.—1. The temperature varies within certain limits (say from 98·5 to 99·5) even in health. Any text-book of physiology will teach you as much. Certain individuals, from constitutional peculiarity, exhibit greater variations (in health) thon others. But food, exertion, mental condition, &c., and state of health, all have an effect on the temperature. The variation you name (from 98·5 to 99 deg. or so) is neither here nor there, and may possibly be normal in the case you allude to. 2. See article on "Consumption," in No. 47. The acute consumption, in the case you name, may, of course, have been developed entirely independently of the wife's affection.

SANITARY.

Torsk.—No objection to the use of "Chloralum" whatever. Both that and "Sanitas" are efficient, and want the (to many) nauseating smell of carbolic acid.

A. T.—You must disconnect your waste-pipe entirely from the closet drain. The sketch you enclose shows only an ordinary U bend (which, as a trap, is useless) between your hand-basin and your main-pipe. This is an antique style of plumbering responsible for much illness.

B. T. S.—Have the water analysed. Nothing short of this can satisfy you.

Ongar.—Possibly the sediment is only mineral matter. There is no evidence of organic contaminatien.

Riza.—Due to foul air. Have ventilation seen to.

Express.—About 40 ft., we believe.

N. G.—Important, and should be seen to by an experienced plumber at once.

Householder.—Do away with the old "pan" closet and fit in a "wash out" or other good make. The smell will then disappear. The pan always gets foul.

Paraffin Oil Lamps (J. S.).—If ventilation of room is *thorough and complete*, there should be no danger from these lamps. But they are very notable sources of air-contamination all the same, and should be avoided in sleeping-rooms. Recently we noted the death of two boys from breathing the air in an ill-ventilated room in which a paraffin lamp had been left burniug.

Catford.—Of course, a cesspool so near the house is always a slight source of danger. We should recommend your strict watching of the cesspool; have it flushed and cleared frequently (are you sure there is no chance of any *backward* flow of gases from cesspool?). Otherwise your arrangements seem sound enough—one great point being that you have no drains under your basement. The separate cisterns are good; but look to that "open ditch" you speak of which receives surplus water. If near the house, have it seen to, as it may become foul. If all drains and "w.c.'s" are properly trapped, there is nothing to recommend—save that we think you should see to that disused scullery w.c. It is always a possible harbour of or exit for gases from the drains.

MEDICAL.

Endymion.—Presuming that you are a "male person," we should say have your hair cut short and keep it so, or moderately long. "Æsthetic hair" simply attracts foreign matter and becomes a kind of dust-bin. 2. There is no better dentifrice than camphorated chalk.

Capillary.—1. You might try a cautious experiment in the way of adding a little fish or rich soup to your diet. 2. The sensation you describe may proceed from wax in the ears. See to the condition of the ears. 3. No; at such an interval what you name cannot be injurious.

R. Morland.—You should read Mr. Carpenter's Articles in Health on "Electricity," also recent articles describing Electrical appliances. The test you name (that of decomposing water) is a good test. Quack electrical appliances cannot do this. 2. Such as we have seen are electrically useless. 3. The person you are going to see will tell you whether or not your belt is "electrical" in the true sense. If not satisfied, send it to us and pay carriage to and fro. 4. If you like to be at the expense of an action against the vendors of the belt, do so by all means. You would have to call scientific evidence, and if you care to do this, we can supply you with the names of persons who would electrically test your belt. The sham electrical swindles deserve exposure. We have done our best to warn the public against them by publishing articles on electrical apparatus.

G. P.—About a tablespoonful to a pint of water. Might be increased if necessary.

Victoria.—Yes; eggs are fattening. Salad not so, save for the oil taken with it. No exertion should be undertaken immediately after meals.

Baritone.—We do not understand you. You require a list of teetotal drinks, and then you specify claret, sherry, &c., which contain alcohol. We should say you would find a little *really good* claret and water as safe a beverage as you could desire. It contains only a small percentage of alcohol.

H. Filer.—You are replied to in No. 47. Read our "Notices to Correspondents," and you will see we cannot reply in the same week as that in which your letter was received.

J. Jackson.—Wash the head with soft tepid water and Pears' Soap twice a week. Avoid using a hard brush or small-tooth comb, and rub in a little Vaseline each night, to which your chemist should add a small proportion of borax.

A Cardiff Subscriber.—You had better continue the oil for a few weeks yet. Better to do without stimulants, but, if needed, try how Bass's bitter ale agrees with you.

Senex.—Depends on individual constitution, health, &c. You must judge by effects. If in good health, we should say not injurious.

Banffshire Keith.—Yes; such children may live and thrive. You had better have the child under the doctor's eye. Cow's milk should be slightly diluted with water if used for feeding children.

A Student.—You are clearly overworking yourself; and you fast too long between breakfast and your next meal. We note with surprise that you do not take any dinner. In addition to overwork you are underfed. Tea contains no nourishment. Unless you have a good meal at midday you will suffer for your work, and all your labour will be thrown away on an unhealthy frame. Work less, eat more. Diet to be light and generous, and more open-air exercise. Yours is a case for diet, not for drugs; and all your symptoms are those of physical weakness.

Andrew Parler.—Yours is a case in which we should strongly advise you to apply at your nearest hospital or dispensary, and undergo a thorough medical examination. There are certain symptoms in your case which render a visit to the doctor absolutely necessary.

Sincerity.—Try the lime powders ordered to "Alga" in Health, No. 45, and if not better write again.

Dunedin.—Cold sponging every morning; sleep on a hard mattress; no stimulants; no fluids to be taken late at night; good, light, and nourishing food; open air exercise; and a teaspoonful of Fellow's "Syrup of the Hypophosphites" thrice daily, before food, in a little water, for a short time.

Repentance.—See advice to "Dunedin" above. Don't be morbid.

Saxhorn.—Give cod-liver oil or "cod-oil emulsion" (a dessertspoonful thrice daily after food), and have added to it a little syrup of iodide of iron (about 3 drachms iron to 6 oz. of oil). When the cough is troublesome inhale the steam arising from a pint of hot water to which a teaspoonful of "Friar's Balsam" has been added. Take care of cold after inhaling. The cod-oil is the sheet-anchor of treatment.

A. Spencer.—Doubtless your cold, together with the constipation account for your symptoms. You should leave off taking the tonic, (which is not meant to be taken continuously). Take a little "Æsculap" water as an aperient in the mornings for a time; and include vegetables and fruit in your dietary. For the throat trouble, inhale the vapour of a pint of hot water to which 20 drops tincture of iodine have been added, taking care of cold thereafter. Glad to be of further service if need be. 10 drops *Fer Bravais* in water thrice daily might be also tried for a time.

Russell.—Nothing can be done for the teeth; but you might try the following mixture: iodide of potass, two drachms; infusion of calumba, six ounces, a dessertspoonful thrice daily. For the hair, try the following: balsam of tolu, 2 drachms; oil of rosemary, 20 drops; tincture of cantharides, 1 drachm; castor oil, half-an-ounce; prepared lard, an ounce and a-half. Mix; label, "for outward use—the hair lotion." Rub in morning and night to the roots.

Emigrant. The tonic is well known in the States. By following directions given to "Dunedin" above (not taking the tonic continuously) you may emigrate with safety. The sea voyage will do you much good.

Patience.—See and follow advice to "Saxhorn" above.

An Anxious Inquirer.—(We do not reply to inquiries by post save in exceptional circumstances.) Try painting the spot with ordinary (*not glacial*) acetic acid. If that does not suffice, try a lotion of hyposulphite of soda, two drachms; glycerine, four drachms, and rose water to make up four ounces. Write again if not cured.

C. R.—Try the following: sulphide of sodium, 3 drachms; lime, 10 drachms; starch, 10 drachms; mix. In using, exercise care; mix with water to make a paste, apply to the parts for two minutes, and then scrape off.

Malida.—Exercise commonsense and restraint. No tonic can act as a spur or stimulant if you persist in undoing its work. Try the tonic recommended to "Dunedin" above; but do not use it continuously, or for any length of time.

W. A. H.—In Scotland, Rothesay and other sheltered and warm Clyde resorts; in England, Bournemouth, Hastings, St. Leonards, Eastbourne, Dawlish, &c. See Health for last year (Vol. I.) for full descriptions of all health-resorts in Great Britain. You require a warm, sheltered, and moist air.

Jennie.—If you follow our advice, you will begin at once and through all the spring, and in each succeeding winter and spring, take small doses of cod liver oil after food, daily. Thomson's "Cod Liver Oil Cream" (to be had from the maker, Dublin-street, Edinburgh, or in London—see our advertising columns) is a preparation which would suit you. In this way you would brace up your system during the cold weather, and a summer residence at a southern resort (Bournemouth, for example,) would also do you good. For the head cold try sniffing "Alkaram," or inhale a little iodine vapour, as recommended to "A. Spencer," above. If your general health can be got above par, your other complaint will likely leave you. Glad to be of any further service.

Proboscis.—"Be content with such things as ye have"—including your long nose. We say this in all seriousness. You would be very foolish indeed to try any "nose machine." Who told you your nose was "too long?"

Magna Charta.—1. Try a little *good* claret and water instead. Beer is not advisable. Claret, if good, will benefit you. 2. Don't be anxious about nose breathing. In time, by habit, it may become easier to you. Yes; by all means have Hincke's Bird's window-block tried. Your room is not too large for one. 3. No harm in having the warm bath in your room. "Of two evils choose the lesser," and the lesser, in this case, is having a little steam in the room—the greater being risk of cold by having the bath elsewhere

Zanoni.—You send us a parcel of broken herbs and ask us to tell you the names of the herbs and relative quantities. From the nature of your request, it is clear you have no adequate notion of its magnitude. We desire to aid our correspondents in every way, but what you ask involves a botanical examination and a chemical analysis. Send your parcel to an analytical chemist, or ask the herbalist from whom you obtained the packet. Our time is much too valuable to be spent in such an inquiry.

T. E. G.—Try applying pure vaseline at night for a week or two, and avoid chills. Write again if not bettered.

Dens.—Attend to your teeth. Use camphorated chalk, with a soft, broad brush, as a dentifrice, and allow a chlorate of potash lozenge to dissolve in your mouth once or twice a day. A mild aperient may also assist you. Try "Æsculap" Water.

Vulcan.—Consult a good surgical instrument maker, who will show you the best kinds. Glad to send you London or other addresses of such, on receipt of stamped addressed envelope.

Sedentary.—We think, when the attack threatens you, you should take an aperient; avoid all solid food, and rest. Light puddings, fish, &c., should thereafter be taken. Attention should be paid to the condition of the bowels, without which attention it is hopeless to expect to ward off these attacks.

A. M. H.—You ask us to repeat a prescription. As you give no indication of the prescription you wish, or of the circumstances under which it is required, we cannot comply with your request. Kindly re-state your wishes fully.

Hope Deferred.—Attend very carefully and regularly to the bowels. It is possible that when your general health is restored your complaint may disappear. Try the effect of leaving off all stimulants, and of drinking freely of potash water only; and let us hear how you are in a few weeks.

J. D.—By all means have the tooth out. There is no more frequent cause of neuralgia than decayed teeth. In all probability, by aid of a little tonic after the visit to the dentist, the general health will improve rapidly. Glad to be of further service, if need be.

F. M.—Yes, we have heard of the preparation, and have seen it also. We have no faith whatever in it. Phosphorus cannot be so combined in a free state. Fellows' "Syrup of the Hypophosphites" (a teaspoonful thrice daily, before food, in a wineglassful of water) is infinitely preferable, and is a thorough nerve-tonic of the highest class.

Mental.—See to your general health. Leave off all mental work for a time; go to the country; take complete rest; and you will find your mental powers renewed through physical improvement.

Evelyn.—See to your teeth. Follow advice to "Dens" in present number. Eat Bragg's "Charcoal Biscuits" occasionally, and take "Æsculap Water" as a mild aperient. If not better, write again.

Pessimist.—Don't be morbid. There is nothing wrong with you. Simply use cold sponging, sleep on a hard mattress, take plenty of open-air exercise, food to be light but nourishing, no stimulants, and for a time take the tonic recommended to "F. M." above.

A "Desirer" of Health.—See advide to "Pessimist" above; you do not, however, require the tonic there recommended—you only suffer from a little indigestion. Don't eat late at night; make a change in your food, which should be light and nourishing. Rest after your meals, and take "Pepsine" with the food for a time.

Eyesore.—Use a little Vaseline to the lids at night. Avoid writing or reading by gas-light for a time, and see to the ventilation of your rooms. Give up tobacco, and let us hear how you are shortly.

Alice Bartin.—All your symptoms point merely to a nervous state. Our advice to you is precisely that given to "Mental" above. Drugs are of no use in your case. You want fresh air and change for a time.

J. E. Acott.—1. We should certainly advise you to give up band-practice. It is evident it is too much of a strain upon you. 2. No instrument can cure your speech-impediment. Try the plan of slowly *singing* your "R's." This may help you towards pronouncing them, and may form the habit of easy speaking.

S. Rogers.—1. See to the general health, and to the teeth especially. As a tonic, you might try that recommended to "F. M." in present number. Guard against cold and chills. 2. The tonic above named may cure the excessive perspiration, which is a sign of general weakness and of the health being below par.

Courier.—You suffer from slight indigestion. See to your teeth especially; rest after your meals; don't eat late at night, and try a little "Pepsine" with your food.

A. M.—See advice to "Courier," above. You might take after food (instead of the "Pepsine" above ordered) a powder consisting of four grains powdered rhubarb and three grains "Pepsine." Rest after meals is a *sine quâ non* in your case.

J. F. Hopwood.—Nothing to be alarmed about; only indicative of a little weakness, which will give way to cold sponging and free exercise. Give up stimulants and drink potash water for a time only. Write again if not cured. See to the condition of the bowels.

Housewife.—See (and follow) advice to "Courier" and "A. M.," above. Glad to assist further, if necessary. Food to consist for a time of soups and fish only. Give up tea and coffee.

Beta.—Try the effect of a vegetable dietary, in part at least. Eat fruits, &c., and let your diet be very light for a time. You do not require any "belt," at present at least. Yours is a case for wise regulation of diet. Take more open-air exercise, and a little "Pepsine" with your food. Let us hear how you are shortly.

Ninon.—1. The sulphate of iron you enclose is right, but such a dye, we are of opinion, would injure your hair. It is a crude dye. 2. Use a little prepared pumice-stone in washing the hands, and use also Pears' soap and tepid water. Avoid chills. 3. Rain water is good, but ordinary tap water should suit. 4. Add Tidman's "Sea Salt" to bath. The cold bath is merely a stimulant, it is not a cleansing measure. Don't use any "vinegars"—all useless. 5. The freezing process is effectual in preventing pain. 6. No tonic is needed in spring if general health is attended to. (Queries not so numerous in one letter again, please.)

A. B. C.—Yes; the electric belts you name are of service in lumbago. Clothe warmly across the loins in addition to using a "belt."

Enid.—Don't take aperients. They are hurtful in your case and are of no service. Try the lime powders ordered to "Alga," in Health No. 45, and, if not better, write again. Send address of the medical man to whom you refer, and we will let you know. Limit your tea by all means.

Lebay.—In such a case, we should advise the application of electricity carefully supervised by a physician. We think (for the sake of the boy's future) you should see a London physician accustomed to treat nervous diseases. We can send you address of such on receipt of stamped addressed envelope.

Folly.—See and follow advice given to "Dunedin," in present number of Health. By attention to these details you will get quite well. We gather from your letter, there is really not much wrong with you. Don't get morbid, seek cheerful society, and take plenty of outdoor exercise.

[*Continued on page* 368.

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Hygeia.—We do not think that there is anything serious in the skin disease you describe. We should strongly advise you to watch your digestion carefully, and to make vegetables and fruits prominent articles of your dietary. When the affection becomes irritating, we should recommend you to try a lotion composed of bicarbonate of soda 1 drachm, glycerine 1½ ounces. You might also try the effect of taking 15 drops *Fer Bravais* in water thrice daily for a time. Look well to the condition of your bowels, and avoid chills. Glad to be of further service, if necessary.

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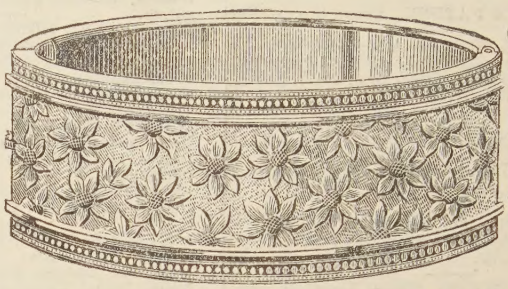

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